The Past AKA
In the beginning

- Total Dependence On Foreign Oil, Energy Dependence on Foreign Unstable Governments.
- Passage of Energy Policy Act And Clean Air Act recognize need for future alternatives.
- Lack of focus and poor planning created ill fated attempts to create sporadic infrastructure with little or no fleet base to support.

Natural Gas is the Expressway to the Future!

- N.Y.S. agencies have nearly 8500 Alt Fuel Vehicles in their fleets. 2178 are CNG with 1343 being dedicated. DOT has 804 of the 1343 dedicated vehicles.
- We are averaging 66,000 gallons per month of CNG being dispensed from our facilities. 183,806 gallons were sold to the public.
- We are beginning to convert our large truck fleet to CNG or LNG Dual Fuel and eventually a dedicated LNG fleet.


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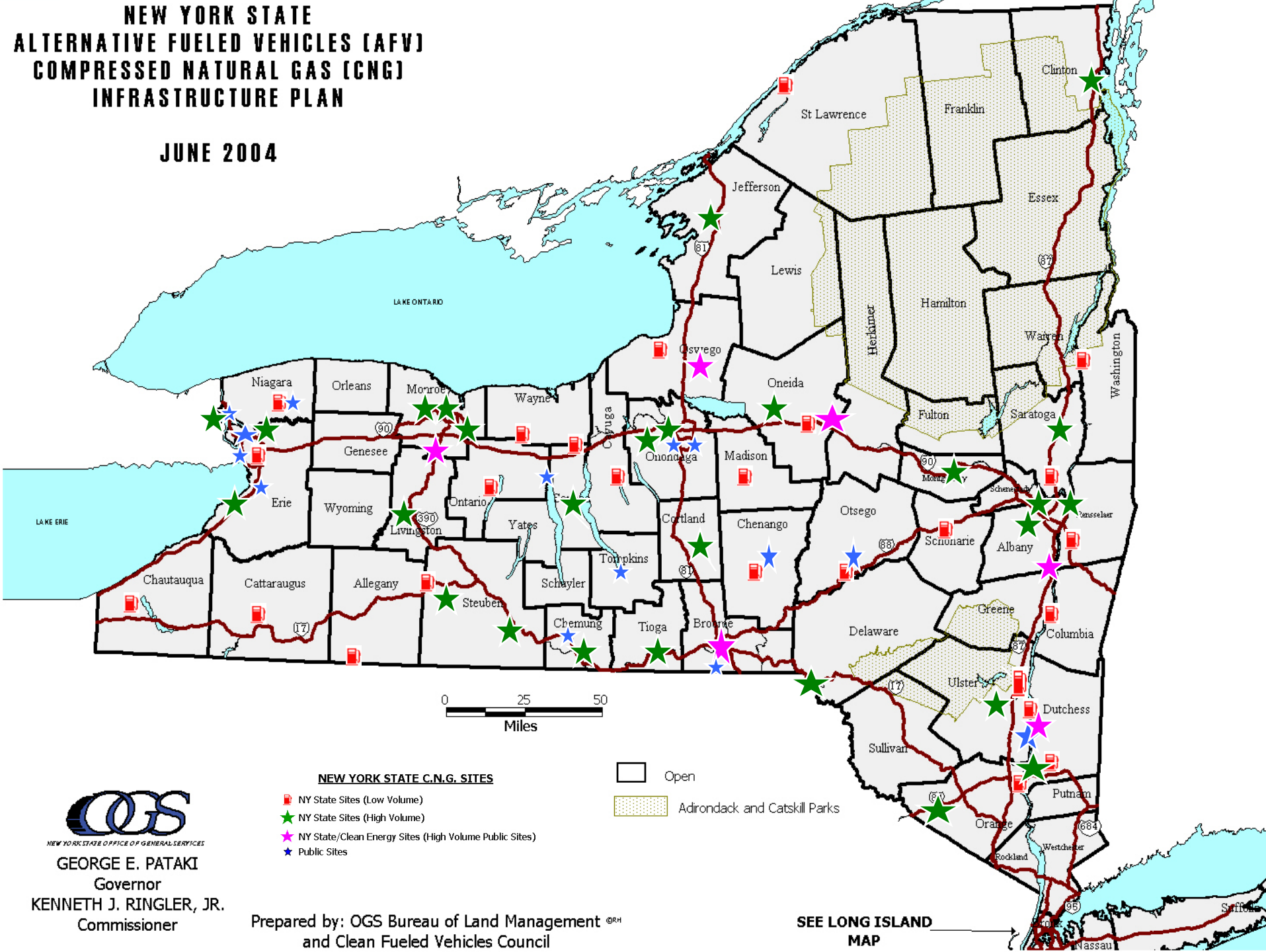
The Key to success is Infrastructure

- We built 30 low volume, fast fill stations in a modular design anticipating expansion.
- 26 of the original 30 sites have expanded capacity. All sites have pressure upgraded to a minimum 4200 psi storage. 18 new sites have been built and 11 more are in progress.
- LCNG will be the design for 150+ stations with no pipeline access.

NEW YORK STATE
ALTERNATIVE FUELED VEHICLES (AFV)
COMPRESSED NATURAL GAS (CNG)
INFRASTRUCTURE PLAN

JUNE 2004



NEW YORK STATE C.N.G. SITES

- NY State Sites (Low Volume)
- NY State Sites (High Volume)
- NY State/Clean Energy Sites (High Volume Public Sites)
- Public Sites

Open

Adirondack and Catskill Parks

NEW YORK STATE OFFICE OF GENERAL SERVICES

GEORGE E. PATAKI
Governor
KENNETH J. RINGLER, JR.
Commissioner

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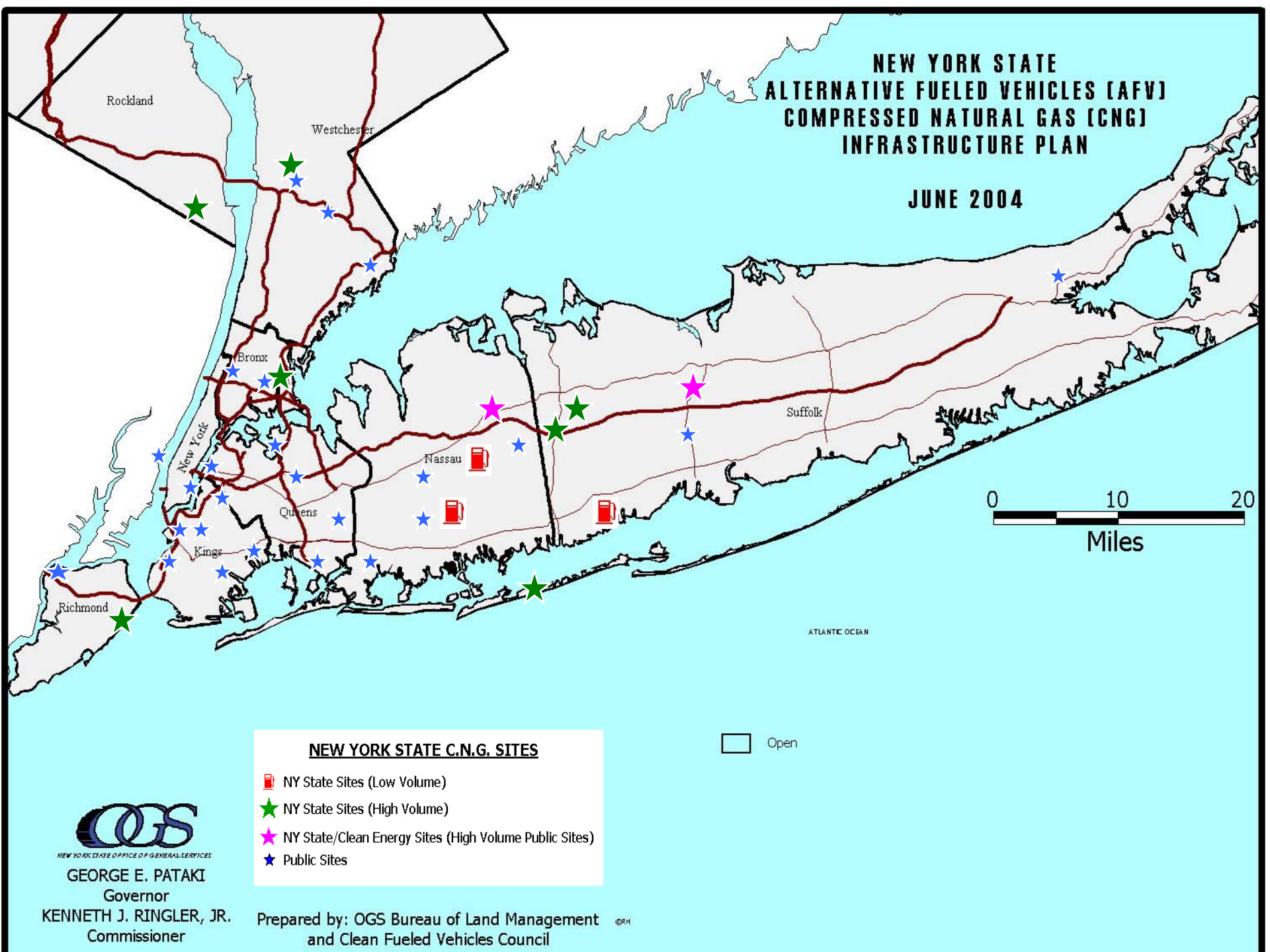
SEE LONG ISLAND MAP


NEW YORK STATE
ALTERNATIVE FUELED VEHICLES (AFV)
COMPRESSED NATURAL GAS (CNG)
INFRASTRUCTURE PLAN
JUNE 2004
Rockland
Westchester
Bronx
New York
Nassau
Suffolk
Queens
Kings
Richmond
ATLANTIC OCEAN
0
10
20
Miles
Open
NEW YORK STATE C.N.G. SITES
NY State Sites (Low Volume)
NY State Sites (High Volume)
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Compressed Natural Gas (CNG) Fuel Usage

Calendar Year	CNG Fuel Consumption (Gasoline Gallon Equivalent)		
	State Sites	Commercial Sites	Total
2000	210,000	N/A	210,000
2001	329,000	N/A	329,000
2002	255,982	239,002	494,984
2003	376,688	220,944	597,632
2007	396,257	397,733	**793,990**
Total			6,480,038

We need to develop the infrastructure necessary to support interstate travel.

- CNG infrastructure does not have to be prohibitively expensive!
- L/CNG infrastructure can serve both vehicle platforms further reducing cost.
- When calculating the cost benefit of natural gas we must also consider the total clean up costs incurred with a fuel spill.

Typical DOT 'Low Volume' Compressor Station


BARLOW ROAD, BINGHAMTON CNG SITE, REGION 9 - 3 SEPT 03

What have we learned to date?

- We are saving a minimum of .20 cents per gallon using natural gas. We saved over $2 per gallon during summer of 2008.
- We have extended oil change intervals 100% with no detrimental effect on the vehicle.
- We have reduced the cost of building infrastructure through competitive bidding.

We are at a critical Transition point from past to future.

- We are near saturation of the logical locations to build CNG infrastructure. We must start building LNG infrastructure in the remaining 75% of our facilities that do not have CNG pipeline access. LNG is also the most logical fuel for the heavy duty fleet. LNG is renewable.

Where are we going?

- Over the next 30 years we will have to replace everyone of our existing diesel and gasoline fuel facilities at a projected cost of 30-50 million dollars.
- I recommend that we instead position ourselves to close these facilities and build LCNG facilities which will fuel both light and heavy duty vehicles at a total cost of about 30 million.

What about Hydrogen?

- The most efficient transition to hydrogen is through Natural Gas technology.
- Hydrogen Fuel Cell technology is inefficient and cost prohibitive now and for the foreseeable future.
- Current hydrogen fuel cell technology is impractical for the majority of transportation needs.

Conclusions

- We should not repeat the mistakes made in the past and become dependant on any single energy source.
- Hydrogen/Fuel Cell technology is viable for relieving pressure on the power grid.
- Bio Fuel technology can displace up to 5% of our current crude oil consumption now and hopefully more in the future.

LNG is the Superhighway to Clean Corridors

- LNG is viable for all fleet vehicles regardless of size.
- LNG does not require pipeline access, it can be liquefied and transported to remote locations.
- LNG is renewable from landfill gas and wastewater gas creating energy independence.

"The best way to predict the future is to create it."